

IN THE CLAIMS

Please amend the claim as follows:

1. (Currently Amended) An optical module comprising:
a stem;
a silicon optical bench disposed on the stem, the silicon optical bench having a V-groove;
a laser diode disposed over the V-groove;
a photo diode disposed in the stem, the photo diode converts light received from the laser diode into current and monitors photo-current level using light reflected from the V-groove;~~and~~
a plurality of leads coupled to the stem; and
an inductor as a choke disposed on the silicon optical bench coupled to the laser diode.
2. (Canceled)
3. (Currently Amended) The optical module as claimed in claim-[[2]]_1, wherein the inductor is a spiral type thin-film inductor.
4. (Original) The optical module as claimed in claim 1, further comprising a RF matching resistor disposed on the silicon optical bench and electrically connected with the laser diode.
5. (Original) The optical module as claimed in claim 1, wherein the photo diode is bonded to the silicon optical bench.

6. (Original) The optical module as claimed in claim 1, wherein the plurality of leads is bonded to the silicon optical bench using an epoxy or solder.

7. (Original) The optical module as claimed in claim 1, wherein the stem and the leads are bonded using glass seal powders having lower dielectric constants than those of ceramic materials.

8. (Previously Presented) The optical module as claimed in claim 7, wherein the glass seal powders is selected from the group consisting of a hard glass that belongs to the B_2O_3 - SiO_2 series and a soft glass that belongs to the Na_2O - BaO series.

9. (Previously Presented) The optical module as claimed in claim 1, wherein the plurality of leads comprises:

a first lead electrically connected with an anode of the laser diode;

a second and the third lead electrically connected with a DC terminal and a RF terminal of the laser diode respectively; and

a fourth and the fifth lead electrically connected with an anode and a cathode of the photo diode, respectively.

10. (Original) The optical module as claimed in claim 9, wherein the first lead and the fifth lead are common.

11. (Original) The optical module as claimed in claim 9, further comprising an inductor connected between the cathode of the photo diode and the anode of the laser diode in order to achieve RF isolation.

12. (Currently Amended) An optical module comprising:

a stem;

a silicon optical bench disposed in the stem, the silicon optical bench having a V-groove;

a laser diode disposed over the V-groove;

a photo diode disposed in the stem, the photo diode converts light received from the laser diode into current and monitors photo-current level using light reflected from the V-groove;~~and~~

a plurality of ceramic feed-throughs coupled to the stem; and

an inductor as a choke disposed on the silicon optical bench and coupled to the laser diode.

13. (New) The optical module as claimed in claim 1, further comprising an impedance line.

14. (New) The optical module as claimed in claim 12, further comprising an impedance line.

15 (New) The optical module as claimed in claim 12, wherein the inductor is a spiral type thin-film inductor.

16. (New) The optical module as claimed in claim 12, further comprising a RF matching resistor disposed on the silicon optical bench and electrically coupled to the laser diode.

17. (New) The optical module as claimed in claim 12, wherein the photo diode is bonded to the silicon optical bench.

18. (New) The optical module as claimed in claim 12, wherein the plurality of ceramic feed-throughs is bonded to the silicon optical bench using an epoxy or solder.

19. (New) The optical module as claimed in claim 12, wherein the stem and the ceramic feed-throughs are bonded using glass seal powders having lower dielectric constants than those of ceramic materials.

20. (New) The optical module as claimed in claim 19, wherein the glass seal powders is selected from the group consisting of a hard glass that belongs to the B_2O_3 - SiO_2 series and a soft glass that belongs to the Na_2O - BaO series.